DWS-3227P Layer 2+ Stackable Gigabit Wireless Switch with PoE

Advanced Switching Features:

+ Tri Optional Fiber XFP 10G Uplinking
+ Dual Optional Copper CX4 10G Uplinking
+ Up to 48Gbps Total Stacking Bandwidth[1]
+ Physical Redundant Stacking
+ Stack Up to 32 Units Per Stack
+ Optional Redundant Power Support
+ Up to 32 Static IP Routes
+ 802.3ad (Link Aggregation)
+ 802.1v (Protocol-based VLANs)
+ 802.1p Priority (8 WRR)
+ DiffServ QoS
+ 802.1x (Port Based Authentication)
+ 4000 802.1q VLANs
+ IGMP Snooping
+ ACL L2/L3/L4
+ SNMPv1/v2/v3
+ Block Against predefined DoS, Trojan, Worm attacks
+ 802.3af Power over Ethernet

Centralized Wireless Platform:

+ 256 Wireless VLANs
+ Up to 25 APs per switch /stack
+ Up to 1500 simultaneous WLAN users per switch /stack[1]
+ Supports 802.11a/b/g standards
+ Seamless Wireless Roaming
+ Standard 10 AP license firmware upgradeable to 25 AP license
+ Industry standard encryption: WEP, WPA, WPA2
+ Supports up to 16 SSIDs per AP
+ Centralized AP management
+ GUI WLAN monitoring & Logging
+ Automatic Channel Assignment
+ Dynamic WLAN Load Balancing
+ Rogue AP detection & containment

L2+ 24-Port Gigabit Switch with 10 Gigabit Uplinks

Overview

The xStack DWS-3227P is an integrated wired and wireless switching solution capable of providing powerful wireless security, easy deployment, the ability to detect rogue access points, and centralized management for all compatible WLAN components. The xStack DWS-3227P switch provides secure, seamless roaming between access points ensuring clear, uninterrupted data and voice communication throughout your wireless network infrastructure. The DWS-3227P comes standard with a 10 client AP license upgradeable to 25. And is capable of supporting 25 APs per switch /stack with up to 1500 WLAN clients.[2]

Centralized Management

The xStack DWS-3227P is capable of centralized management of compatible wireless access points. No longer will each individual access point need to be configured independently. Now your entire wireless network can be managed through a single interface. The xStack DWS-3227P includes support for automatic discovery and configuration of APs with real-time monitoring, providing visibility into utilization and performance of WLAN users and devices.

Security

The D-Link xStack DWS-3227P provides Enhanced Wireless Security Features to ensure your data is protected from hackers. Support for WEP, WPA and WPA2 Encryption guarantees the privacy of your network data. Rogue AP detection and containment ensure only the APs you install are able to function on your network. AP detection allows identification of APs into "known" and "rogue" classifications. The switch uses the APs to continuously scan radio channels in an attempt to identify transmissions of unauthorized WLAN nodes facilitating notification, tracing, and or jamming of the rogue signals.

Seamless Roaming

When a user roams between APs connected to different broadcast domains, the users IP address is no longer valid after the move to the new AP. This means the users device (laptop, PDA, VoIP phone) will need to change its IP address thus breaking the active session. With "always connected" devices such as VoIP phones and PDA's this can create a huge problem. The need for a solution to provide seamless roaming between APs on different subnets becomes essential to maintaining active sessions and VoIP calls.

The D-Link DWS-3227P addresses this problem by bringing AP configurations and support directly into the switch itself. This allows the user to move between access points (within a single stack of up to 32 DWS-3227P switches) with seamless mobility. To the users PDA or VoIP phone, the move appears as if it were between APs on a single broadcast domain. This means the users device will retain its VLAN membership and IP address guaranteeing uninterrupted communication.

IEEE 802.3af Power over Ethernet

The DWS-3227P supports 24 ports of 802.3af Power-over-Ethernet and supplies up to 15.4 watts per port to power any 802.3af compliant power device. The need for Power over Ethernet enabled switching devices is growing with the proliferation of PoE capable Access Points, IP phones, and security cameras. The difficulty and cost often associated with running new AC power outlets to difficult to reach locations has made PoE an dispensable technology for SMBs, Schools, and Enterprise class networks. When used in combination with PoE powered wireless access points such as the DWL-2230AP and DWL-7230AP, deploying a centrally managed wireless solution becomes even easier.

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Advanced Wired Functionality[3]

The xStack DWS-3227P supports a variety of features designed to provide high-availability, redundancy and uptime. The xStack DWS-3227P supports " Shortest-Path" switching, for improved network efficiency, an optional Redundant Power Supply, and support for enterprise class networking features such as cross stack 802.3ad Link Aggregation, DNA redundant fail-over stacking, 802.1d, 802.1w, and 802.1s Multiple Spanning Tree groups and a variety of network management options including: CLI, Telnet, Web-based and SNMP v.1/v.2c/v.3 management, RMON monitoring, TFTP firmware upgradeability, Port Mirroring for troubleshooting, BootP, and DHCP IP assignment. In addition, the xStack DWS-3227P also supports a variety of advanced traffic management options including: Rate limiting on ingress and egress down to 64k, Broadcast Storm Control, to protect network connectivity in the event of a broadcast storm, and IGMP Snooping, which 'snoops' all Internet Group Multicast Protocol (IGMP) traffic, and prevents unwanted data streams from affecting network or end-station performance. The xStack DWS-3227P also supports L2/3/4 QoS and ACLs, Guest and Private VLANs, 802.1x user authentication and more.

Technical Specifications

Product specifications

DWS-3227P	L2+ Managed Wireless switch with (24) 10/100/1000Mbps Ports, (4) Combo SFP Ports, 1 fixed XFP interface & (2) Optional 10-Gig Copper/Fiber Uplinks + PoE
MAC address Table	16K
Switch Fabric	108Gbps
VLANs	Supports up to 4K VLAN Groups (port based, 802.1Q, GARP/GVRP, 802.1v protocol based)
Priority Queues	8 Queues (802.1p/TOS/DiffServ) – Strict Priority or Weighted Round Robin Queue Scheduling
Classification QoS/ACLs	Based on: MAC, IP, TCP/UDP, Payload, Port, DSCP, 802.1p
Routing	32 static routes
Multicast Support	IGMP snooping
Predefined ACLs	DoS attacks, Trojan Horse, CPU DoS protection

Interface Options

RJ-45	10Base-T, 100Base-TX, & 1000Base-T
LC	With Optional Standard Small Form-Factor Pluggable (SFP) Gigabit Transceivers With optional 10Gigabit XFP transceivers.
CX-4	With optional 10GBASE-CX-4 Module
RPS	Redundant Power Option Via Optional (DPS-600)

Wireless Switching

AP license's	10 standard. Firmware upgradeable to 25
Max allowed APs	25 APs per switch. 25 APs per stack
WLAN encryption	WPA, WPA2, WEP (64 & 128 bit)
WLAN security	802.1x Authentication
Rogue AP detection	Port Based & Radio Based
Supported Roaming	Intra-Switch, Inter-Band, Inter-Switch
802.11 support	802.11a, 802.11b, 802.11g (based on supporting AP)
Max Users per AP	30 WLAN simultaneous users. 1500 max per switch / stack using dual band AP
Wireless VLANs	256
SSIDs	16 concurrent SSIDs per AP

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WLAN Management	HTTP, HTTPS, Telnet, SSH, SNMP
SYSLOG Events	connection success / failure, station roaming / AP connection, error rates above threshold, encryption errors
Logging Filters	Errors only, all events, per station, per AP
Additional Features	Automatic Channel Assignment, Dynamic Load Balancing

Network Protocols and Standards

In Band & Out of Band	Telnet, CLI/Console, RMON, Web-based HTTP, SNMPv1/v2/v3, Syslog, Port Mirroring, TFTP Client, BootP Client, DHCP Client, BootP/DHCP Relay Agent, and DNS Client
IEEE	802.3 Ethernet, 802.3u Fast Ethernet, 802.3ab Gigabit Ethernet, 802.3z Gigabit Ethernet, 802.3ak 10GBASE-CX-4, 802.3ae 10GbE, 802.1d Spanning Tree, 802.1w Rapid Spanning Tree, 802.1p Priority Tags, 802.1q VLANs, 802.3ad Link Aggregation, 802.3x Flow Control, 802.1x Port-based Authentication, 802.1x MAC-based Authentication, 802.1s Multiple Spanning Tree, 802.1v protocol-based VLANs
IETF	RFC 1157 SNMP, RFC 1112/2236 IGMPv1/2, RFC 1757 RMON (4 Groups), RFC 1493 Bridge MIB, RFC 1213 MIB II, RFC 793 TCP, RFC 826 ARP, RFC 854 Telnet, Diffserv

Electrical & Emissions Summary

Emissions	CE Mark & FCC Class A
Power Supply	100-240VAC, 50/60 Hz Internal Universal
Power Consumption	TBA
PoE Budget	375 watts

Safety Agency Certifications and Environmental

Safety	CE/LVD, UL Listed (UL1950)/CUL
Temperature	Operating: 0° – 50° C (32° – 122° F) Storage: -10° – 65° C (-4° – 149° F)
Humidity	Operating: 10% to 85% RH, Non-Condensing Storage: 0% to 95% RH, Non-Condensing

Physical Specifications

Dimensions (W x D x H)	440mm x 430mm x 45mm (17.32x 16.93 x 1.77in))
Height	1U
Weight	6.5kg (14.33lbs)

Warranty and Support Information

Warranty	Limited Lifetime Warranty
Support	Free Technical Support

Ordering Information

Part Number	*Description*
Switch	
DWS-3227P	Stackable Managed Layer 2 Wireless Switch with 10 AP license and (24) 10/100/1000Mbps Ports, (4) Combo SFP ports, 1 fixed XFP & (2) Optional 10-Gig Copper/Fiber Uplinks and PoE
DWS-3227	Stackable Managed Layer 2+ Wireless Switch with 10 AP license and (24) 10/100/1000Mbps Ports, (4) Combo SFP ports, 1 fixed XFP & (2) Optional 10-Gig Copper/Fiber Uplinks
DWS-3250	Stackable Managed Layer 2+ Wireless Switch with 10 AP license and (48) 10/100/1000Mbps Ports, (4) Combo SFP ports, 1 fixed XFP & (2) Optional 10-Gig Copper/Fiber Uplinks

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Access Points	
DWL-2130AP	xStack 3200 Series 802.11g Access Point
DWL-2230AP	xStack 3200 Series 802.11g Access Point with 802.3af PoE
DWL-7130AP	xStack 3200 Series 802.11a/b/g Access Point
DWL-7230AP	xStack 3200 Series 802.11a/b/g Access Point with 802.3af PoE
Modules	
DEM-411X	1-Port 10 Gigabit Fiber Module with XFP slot
DEM-411T	1-Port 10 Gigabit 802.3ak Module with CX-4 connector
DEM-411S	Stacking Kit (2 DEM-411T modules & one 0.5 Meter stacking Cable)
Transceivers	
DEM-310GT	Mini-GBIC/SFP 1000BASE-LX (up to 10Km)
DEM-311GT	Mini-GBIC/SFP 1000BASE-SX (up to 550m)
DEM-421XT	10GBASE-SR Multi-Mode XFP (up to 300m)
DEM-422XT	10GBASE-LR Single-Mode XFP (up to 10km)
Redundant Power	
DPS-600	500 Watt Redundant Power Supply
AP License	
DS-725	25 Access Point License

[1] Using optional dual CX4 uplink module
[2] Utilizing dual band APs. Single AP radio usage limited to 750 clients
[3] Please Refer to the DXS-3227P Datasheet for more details regarding the wired features

All references to speed are for comparison purposes only.

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